allow its delivery using minimally invasive surgical equipment such as tubes or cannulas. The device is inserted into the cavity of the patient and positioned within the patient using radiography or other visualization techniques.

All of the chambers are then filled through a single rotating valve having holes corresponding to openings in each of the chambers. The rotating valve is positioned such that holes in the valve align with openings in the chambers. Then, a fast resorbing reverse phase hydrogel is inserted through the valve (in liquid form), such that the liquid form of the gel flows into each of the chambers.

A pressure gauge on the device or a transducer capable of transmitting a signal to a remote device, indicates to the physician when the chambers have been filled to a desired amount, such that the surgeon stops the flow of the filler material into the chambers after the desired pressure is reached. It is contemplated that the filling (or stoppage thereof) may be somewhat automated, such that filling stops automatically upon a pressure or volume range reaching a pre-set level. Filling may also be stopped by rotating the ball valve 90 degrees to a closed position such that the holes of the ball valve are no longer aligned with the chambers. Regardless of how filling is actually stopped, the chambers are sealed after filling to prevent leakage of the filler material out of the chambers.

The hydrogel filler material gels upon reaching body temperature. Any load placed on the device may be distributed or shared among the different chambers.

Although the invention has been described in example specific embodiments, many additional modifications and variations would be apparent to those skilled in the art. For example, many modifications may be made by those skilled in the art to the example devices, including for example to the number, size, shape and placement of various chambers, as well as the type, number and configuration of filling manifolds. Other modifications may be made for example to the methods, including the addition of or changing the order of various steps. It is therefore to be understood that the invention may be practiced other than as specifically described. Thus, the present embodiments should be considered in all respects as illustrative and not restrictive.

What is claimed is:

1. A surgical method comprising:

providing an implant, wherein the implant includes a deflated configuration and an inflated configuration whereby at least a portion of the implant is expanded to a size greater than in the deflated configuration;

inserting the implant into a disc space of a patient in the deflated configuration; and

inflating the implant within the disc space of the patient,

wherein the implant comprises at least three chambers arranged side-by-side and a filling manifold for providing access to at least one of the chambers in order to provide a filling material therein, and wherein the at least three chambers comprise adjacent concentric hollow cylindrical tube chambers.

2. The method of claim **1**, wherein the at least three chambers are independent chambers in which filling material does not pass therebetween.

3. The method of claim **1**, wherein the at least three chambers are interrelated chambers in which filling material does pass therebetween.

4. The method of claim **1**, wherein the filling manifold comprises a rotating ball valve.

5. The method of claim **1**, wherein the at least three chambers are formed of a flexible polymer.

6. The method of claim **1**, wherein the filling material comprises a non-resorbable hydrogel.

7. A surgical method comprising:

providing an implant, wherein the implant includes a deflated configuration and an inflated configuration whereby at least a portion of the implant is expanded to a size greater than in the deflated configuration;

inserting the implant through a cannula into a patient in the deflated configuration; and

inflating the implant within the patient,

wherein the implant comprises at least three chambers and a filling manifold for providing access to at least one of the chambers in order to provide a filling material therein, and wherein the at least three chambers comprise adjacent concentric hollow cylindrical tube chambers.

8. The method of claim **7**, further comprising filling each of the at least three chambers individually with a filling material.

9. The method of claim **7**, wherein the filling manifold comprises at least one rotating ball valve adapted to allow a filler medium to be inserted at least partially concurrently into at least two of the chambers.

10. The method of claim **7**, wherein the filler medium is at least one material selected from the group consisting of hydrogel, air, water, and saline.

11. The method of claim **7**, wherein the implant further comprises a pressure detector within at least one of said chambers.

12. A surgical method comprising:

providing an implant, wherein the implant includes a deflated configuration and an inflated configuration whereby at least a portion of the implant is expanded to a size greater than in the deflated configuration;

inserting the implant into a patient in the deflated configuration; and

inflating the implant within the patient,

wherein the implant comprises at least three independent, adjacent, hollow tube chambers comprising a flexible polymer material, wherein each tube is curved to form a ring and the rings are arranged concentrically around an axis, and wherein the implant further comprises at least one filling manifold adapted to allow a filler material to be inserted into at least one of the chambers.

13. The method of claim **12**, wherein the filler material is at least one material selected from the group consisting of hydrogel, air, water, and saline.

14. The method of claim **12**, wherein the implant comprises a pressure detector within at least one of said chambers.

15. The method of claim **12**, wherein the implant comprises a sealing means to prevent filler material from entering or exiting at least one of the chambers.

16. The method of claim **12**, wherein the at least three chambers are surrounded by a reinforcing material.

17. The method of claim **12**, wherein the implant is implanted for at least one of the following: replacement or augmentation of nucleus pulposus; distraction of neighboring vertebral elements; cushioning in a joint replacement system; plastic surgery augmentation, reconstruction, restoration, or tissue expansion; and damping, positioning, or isolation in a mechanical system.

18. The method of claim **12**, wherein the at least one filling manifold comprises a rotating valve.

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